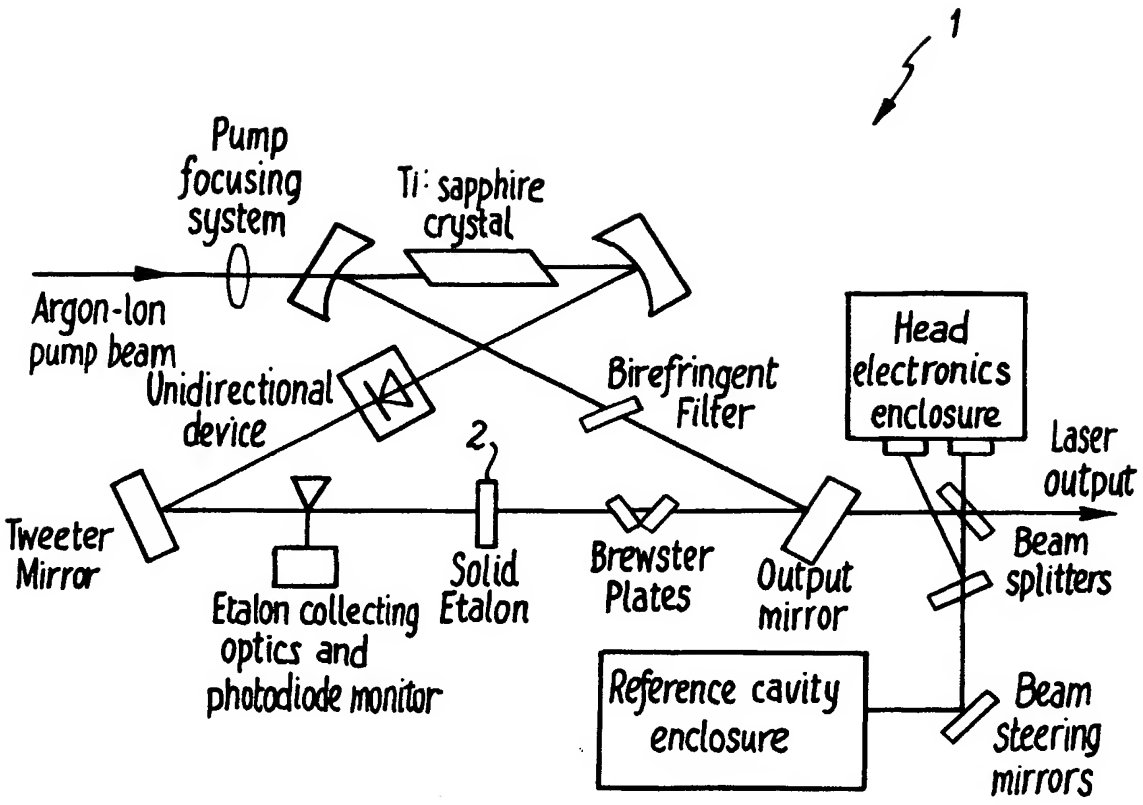
1
Pump focusing system
Ti: sapphire crystal
Argon-Ion pump beam
Unidirectional device
Birefringent Filter
Head electronics enclosure
Laser output
2
Tweeter Mirror
Etalon collecting optics and photodiode monitor
Solid Etalon
Brewster Plates
Output mirror
Beam splitters
Reference cavity enclosure
Beam steering mirrors

FIG. 1

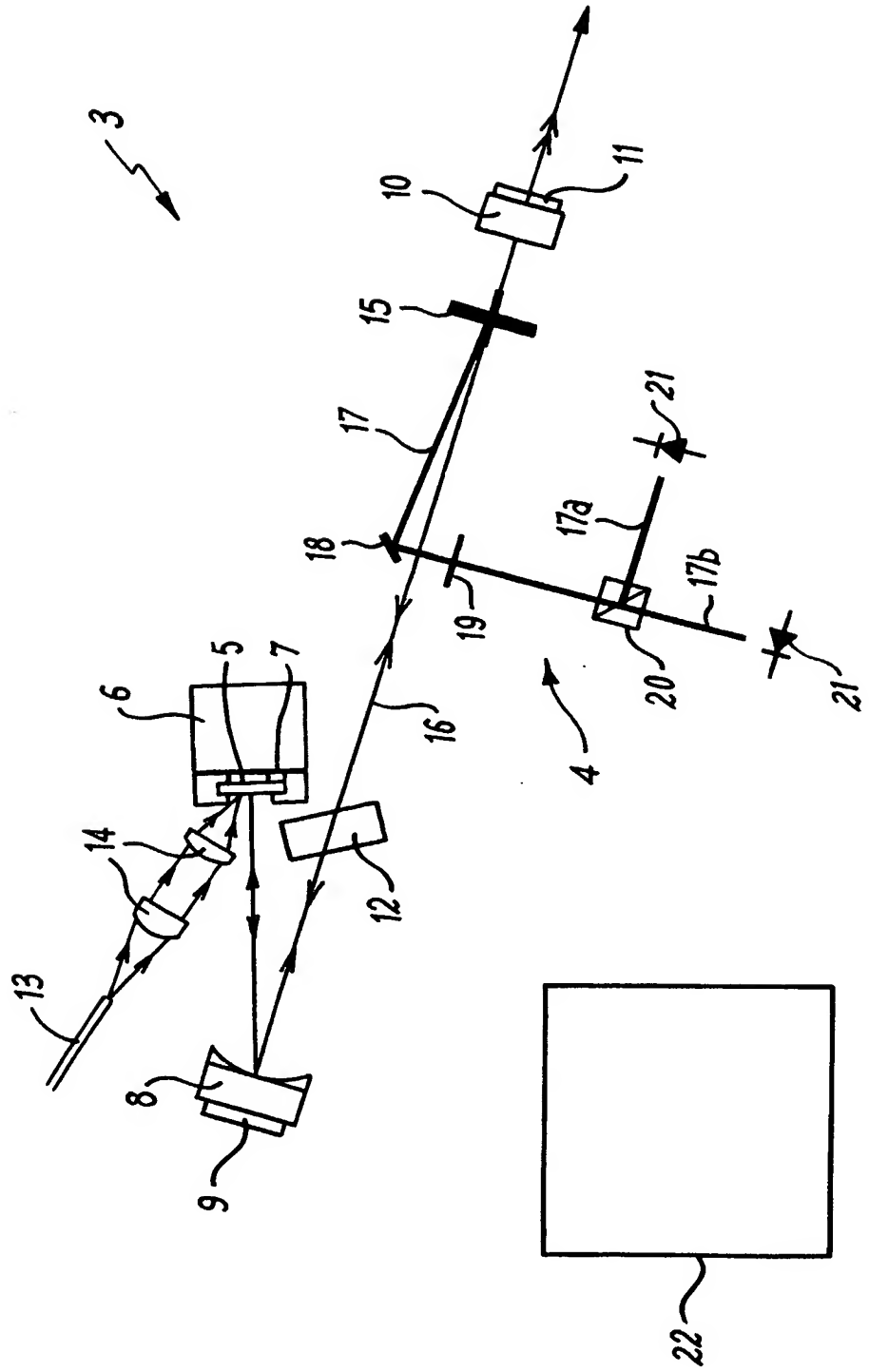

FIG. 2

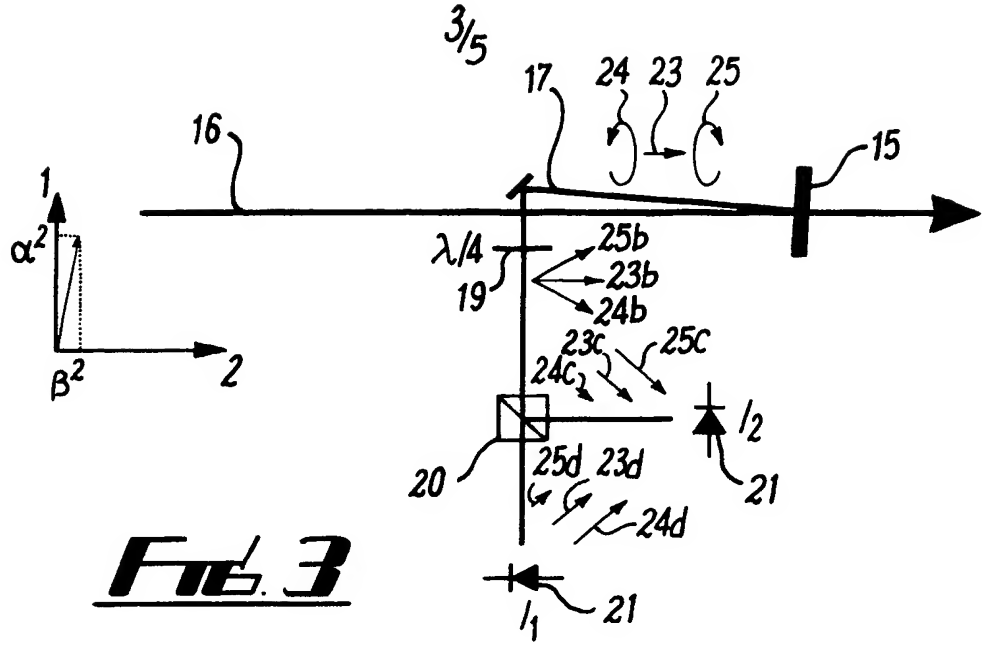
16
17
24
23
25
15
1
α^2
β^2
2
λ/4
19
25b
23b
24b
23c
25c
24c
I_2
20
25d
23d
24d
21
I_1
21

FIG. 3

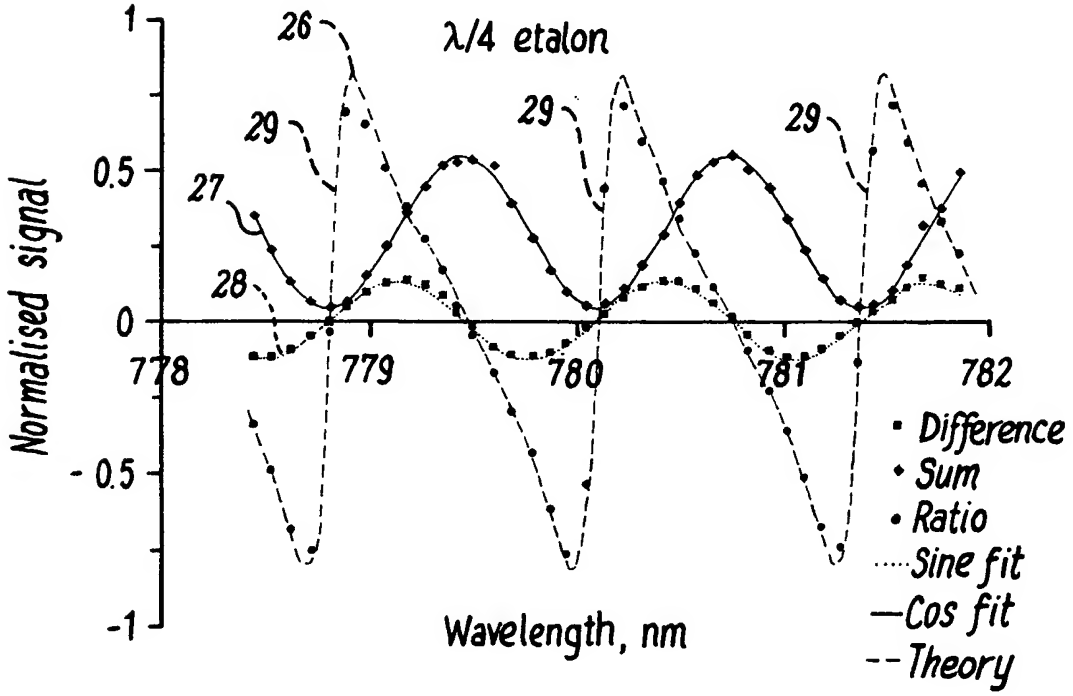
λ/4 etalon
Normalised signal
1
0.5
0
-0.5
-1
778
779
780
781
782
Wavelength, nm
26
27
28
29
29
29
• Difference
• Sum
• Ratio
.....Sine fit
—Cos fit
--Theory

FIG. 4

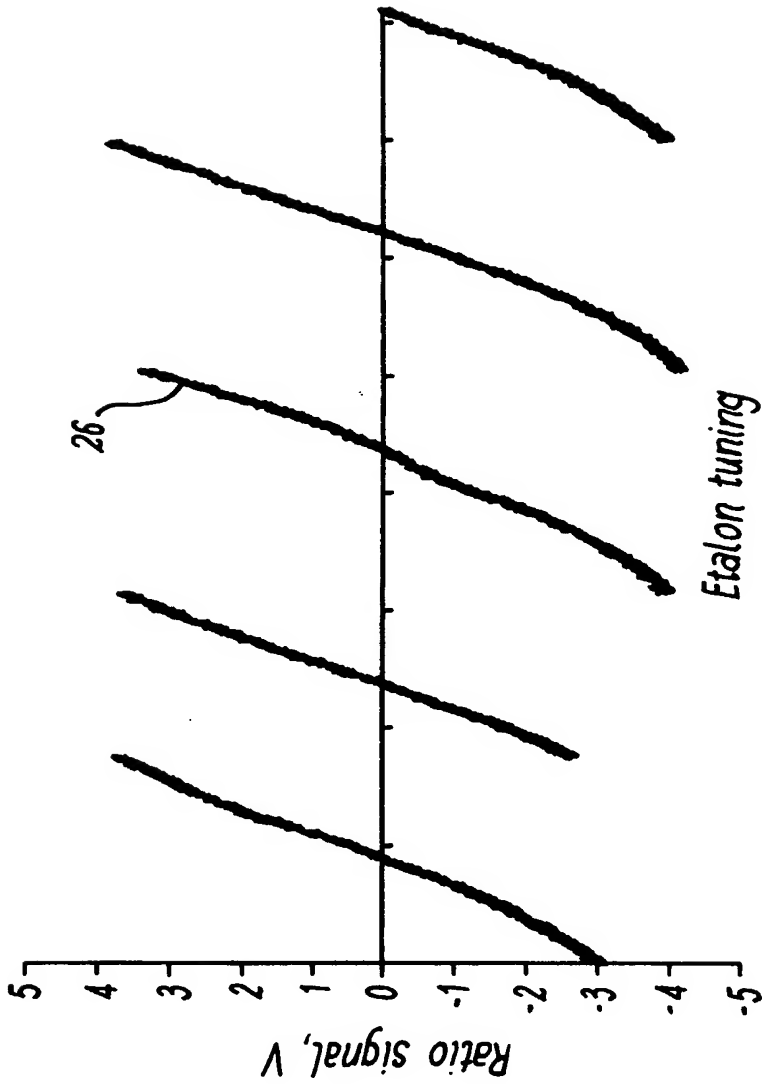

FIG. 5

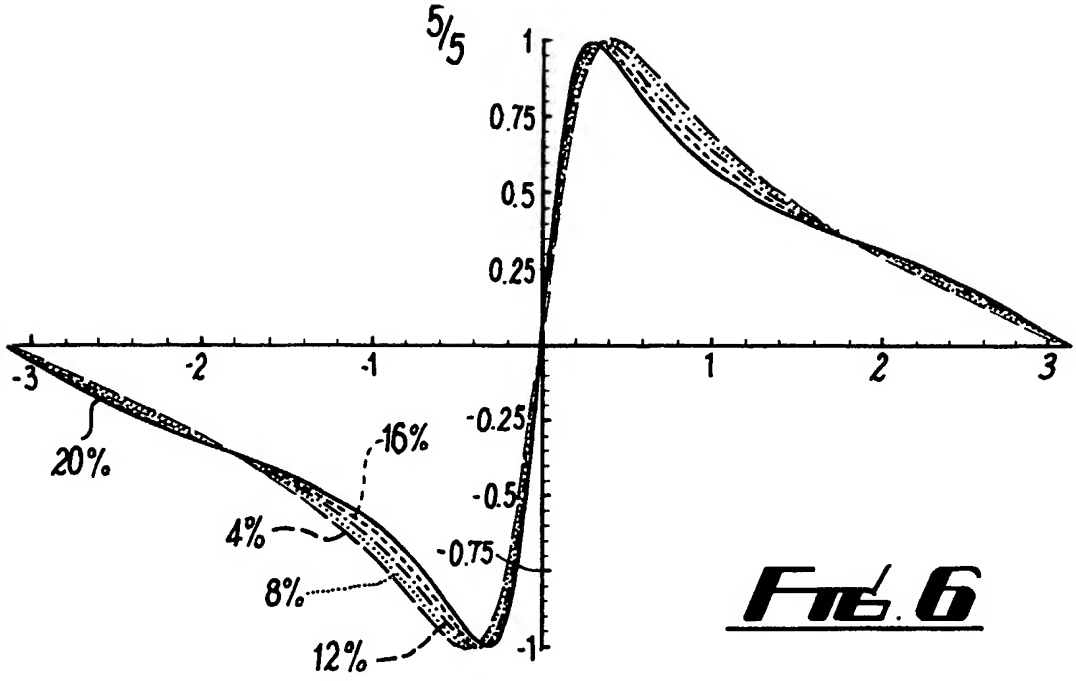
5/5
1
0.75
0.5
0.25
-3
-2
-1
1
2
3
-0.25
-0.5
-0.75
-1
20%
16%
4%
8%
12%

FIG. 6

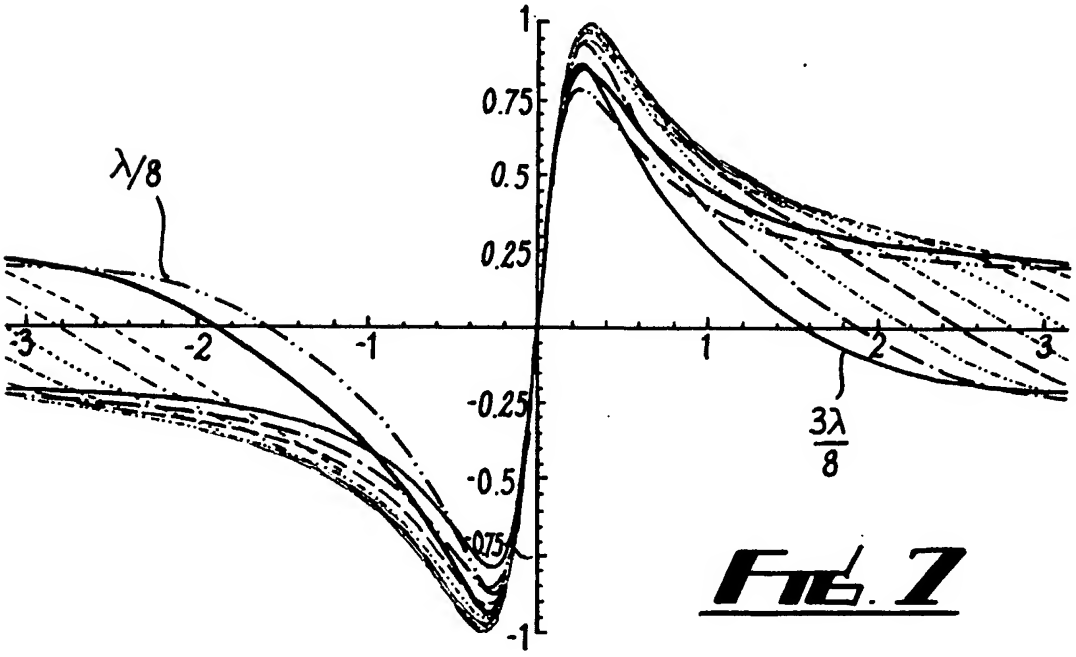
1
0.75
0.5
0.25
λ/8
-3
-2
-1
1
2
3
-0.25
-0.5
-0.75
-1
3λ/8

FIG. 7